

C-40 Visual Field Tests

Your Comprehensive Guide

[C-40 Visual Field Exam Overview](#)

The C-40 Visual Field Exam at a Glance

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

Start Conducting the C-40 Exam with Carrot

When patients need a medical approval to return to work, are due for a driver's license, or are at high risk for vision loss, the C-40 visual field test may help with the necessary testing and documentation. This suprathreshold test uses brighter stimuli and fewer points than other visual field exams, providing faster results that are ideal for quick screenings.

The C-40 is most often used to identify considerable vision loss among patients at high risk of moderate to severe glaucoma or optic neuropathy. It's also ideal for follow-up assessments of patients with ongoing conditions that affect their vision. The C-40 is already fast and convenient, and when you conduct these exams using Carrot, it fits seamlessly into your patient exam workflows.

C-40 Visual Field Exam Overview

The C-40 visual field test is an efficient way to check for major vision loss in the central field, so it's often used for occupational screenings. It measures [40 points](#) across the central 30 degrees to reveal deficiencies that may indicate glaucoma, optic nerve damage, or neurological conditions. Other visual field exams offer more insight into peripheral vision, and still others have higher levels of sensitivity. However, the C-40 is reliable for an initial screening or quick follow-up assessment. From there, targeted testing can provide more conclusive results.

Because the C-40 focuses on moderate to severe vision loss, it may not detect early symptoms; however, it can flag potential problems that require further testing. Traditionally, this test was performed using a [tabletop perimetry device](#), which required patients to sit in a darkened room for approximately five minutes per eye. Today, Carrot makes it even faster. For patients who are physically unable or unwilling to use a tabletop perimeter, virtual reality visual field testing offers an accessible and comfortable option that can be conducted anywhere in your practice.

[C-40 Visual Field Exam Overview](#)

The C-40 Visual Field Exam at a Glance

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

Start Conducting the C-40 Exam with Carrot

Academic references and clinical validation



The C-40 is often cited as a reference standard or **benchmark** when exploring the feasibility and accuracy of techniques like SVOP.

C-40 Visual Field Exam Overview

[The C-40 Visual Field Exam at a Glance](#)

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

Start Conducting the C-40 Exam with Carrot

The C-40 Visual Field Test at a Glance

For new patients, those with known defects, and those needing basic clearance for occupational [screenings](#), the C-40 is ideal for identifying more apparent issues in the central field of vision. It's fast, low-cost, and will [identify the most pressing issues](#) affecting a patient's vision. The exam is efficient and convenient when added to routine screenings for moderate to severe vision loss, but it lacks sensitivity for subtler defects and peripheral vision loss. The C-40 is often associated with detecting glaucoma, but it can also monitor optic neuropathy, macular degeneration, and post-stroke visual impairments. If the C-40 detects visual field deficiencies, you can administer more comprehensive tests for further details.

Pros and cons of the C-40 test

We know the C-40 exam is efficient, useful, and widely used, but there are pros and cons to incorporating this test into your routine.

PROS	CONS
The C-40 is known for its speed, so it's ideal for routine exams at busy practices and patients who struggle to stay focused for long periods.	The C-40 has limited sensitivity, so it may miss early-stage visual field defects and lead to false negatives.
This visual field test is optimal for detecting moderate to severe visual field defects, especially in conditions like glaucoma and optic nerve damage.	Its focus on the central visual field ignores much of the peripheral vision and is less comprehensive than other tests.
The C-40 is useful for following up with patients who have known visual field defects. This test can quickly document progression or improvement.	Compared to other perimetry tests, the C-40 isn't widely referenced because it's used more for general screenings than diagnostics.

C-40 Visual Field Exam Overview

The C-40 Visual Field Exam at a Glance

[List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam](#)

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

Start Conducting the C-40 Exam with Carrot



11%

of Americans have diabetes

+25%

over a quarter of them will experience diabetic retinopathy

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Test

Glaucoma	The C-40 can effectively detect moderate to severe vision loss in the central vision field, which points to later stages of glaucoma. This fast and efficient test will help you assess disease progression and determine if additional testing is needed.
Macular Degeneration	Vision loss associated with macular degeneration often begins with subtle changes that the patients themselves may overlook, so the C-40 is not used for early-stage cases. However, for patients with known macular degeneration, it can be helpful to outline the extent of central visual field loss over time and to inform a treatment plan.
Stroke-Related Vision Deficits	In patients who have suffered a stroke, the C-40 can be instrumental in detecting central field defects resulting from damage to the visual processing areas of the brain. Identifying severe defects in central vision can suggest brain injury, so the C-40 can inform rehabilitation.
Optic Neuropathy	Damage to the optic nerve often occurs in the central vision first, and the C-40's suprathreshold stimuli can identify moderate to severe defects at a glance.
Diabetic Retinopathy	Diabetic retinopathy can lead to damage in both the central and peripheral visual fields, but advanced stages may affect central vision due to macular edema or ischemia. The C-40 can assess moderate to severe visual loss in diabetic patients who have developed significant retinal damage.
Other Conditions	The C-40 test can also be used to monitor or diagnose: Retinal artery/vein occlusion • Retinitis pigmentosa • Traumatic brain injury (TBI) • Hypertension-related eye damage • Toxins or drugs affecting vision

C-40 Visual Field Exam Overview

The C-40 Visual Field Exam at a Glance

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

Start Conducting the C-40 Exam with Carrot

Example C-40 Reports

RIGHT | Sep 15, 2023, 1:11 PM
Visual Field | Carrot

Sample Patient

8.25.1956 (67)

MRN
pa_0dbe22ba

PATTERN
Central 10-2

STIMULUS
III, White

RX
+0.0 DS +0.0 DC +0.0 AX +0.0 EQ

FOVEA
Disabled

STRATEGY
BOLT

FIXATION TARGET
Central Point

DURATION
4:29

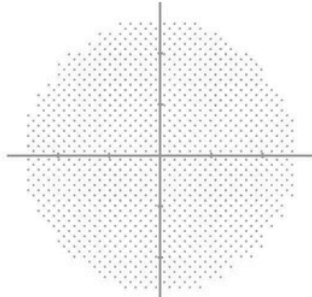
FIXATION LOSSES
0/8

FALSE POSITIVES
0%

FALSE NEGATIVES
0/9

MD
7.28 dB

PSD
1.36 dB



10°

32	28								
34	33	32	30	31	31				
30	34	33	34	32	32	34	31		
34	34	36	34	34	34	33	33		
33	32	35	34	34	33	30	33	33	32
34	32	33	34	34	36	36	34	33	36
33	33	33	35	36	36	33	34		
32	32	33	33	34	36	34	34		
30	33	33	34	34	34				
33	33								

TOTAL DEVIATION

7	3								
9	7	7	5	5	6				
5	8	7	8	6	6	9	5		
8	7	9	8	8	7	7	7		
7	6	8	8	7	4	7	7	7	
8	6	7	8	8	10	9	8	7	11
7	7	7	8	10	9	6	8		
6	6	7	7	8	9	8	8		
4	7	7	8	8	8				
8	7								

PATTERN DEVIATION

-1	-5								
1	-1	-1	-3	-3	-2				
-3	0	-1	0	-2	-2	1	-3		
0	-1	1	0	0	-1	-1	-1		
-1	-2	0	0	0	-1	-4	-1	-1	-1
0	-2	-1	0	0	2	1	0	-1	3
-1	-1	-1	0	2	1	-2	0		
-2	-2	-1	-1	0	1	0	0		
-4	-1	-1	0	0	0				
0	-1								

OUR NOTES

NOTES

⋮ P < 5%

⊠ P < 2%

⊞ P < 1%

■ P < 0.5%

9.15.2023 1:11 PM | Printed

Contact: Sample Office B | 4321 Red Lane, Carlsbad, CA 92008

Page 1 of 1

C-40 Visual Field Exam Overview

The C-40 Visual Field Exam at a Glance

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

[Billing and Coding for the C-40 Eye Test](#)

Start Conducting the C-40 Exam with Carrot

Billing and Coding for the C-40 Eye Test

You can bill insurance for the C-40 visual field exam. This screening test falls under CPT code 92081, which is used for limited visual field exams.

The [Medicare Physician Fee Schedule \(MPFS\)](#) indicates reimbursement ranging from \$15 to \$42 per test. Your fee will vary depending on modifiers, your location, practice setting, purpose of the screening, and other factors.

When is the C-40 visual field exam required?

The C-40 is a fast and basic visual field exam that identifies moderate to severe deficiencies, making it well-suited for occupational screenings and [driver's licensing](#).

It's often used in routine eye exams, especially for those at risk for glaucoma, optic nerve damage, or neurological conditions. The C-40 test is not as detailed as comprehensive tests; therefore, it is typically treated as an initial screening. For patients with severe glaucoma or optic neuropathy, you may wish to offer the C-40 annually or semi-annually to monitor vision changes.

Is the C-40 visual field test required for driver's licenses?

No states explicitly name the C-40 as a required test for driver's licensing, but in most states, drivers are expected to pass a visual field test. The C-40 or the Esterman are usually used for driver's licensing because they provide quick, concise results that identify the most serious deficiencies. For patients with borderline vision, you may wish to follow up with a more comprehensive test like the 24-2.

C-40 Visual Field Exam Overview

The C-40 Visual Field Exam at a Glance

List of Ocular Diseases Monitored and Diagnoses Identified by the C-40 Exam

Example C-40 Results

Billing and Coding for the C-40 Eye Exam

[Start Conducting the C-40 Test with Carrot](#)

Start Conducting the C-40 Test with Carrot

The C-40 was one of the first screenings we added to Carrot, and with good reason. This test enables you to incorporate visual field testing into even routine exams, supporting more patients at various stages of their eye care needs. Save time, gain a comprehensive understanding of your patients' vision, and closely monitor your highest-risk patients. Carrot helps you collect the most precise C-40 data possible, enabling you to make informed decisions and provide your patients with a modern, comfortable experience.

Ready to get started?

Schedule a demo or begin your 30-day free trial of Carrot to offer an exceptional eye exam experience in your practice.

[Book a demo](#)

[Start your 30-day trial](#)



Questions? Contact sales@carrot.io talk to a Carrot expert today.